

Diffusion coefficient of ethanol in tetrachloro-methane at infinite dilution

3 Diffusion in Liquid Mixtures

3.1. Data

3.1.2. Diffusion in Binary Mixtures at Infinite Dilution

C ₂ H ₆ O	(1)	ethanol	64-17-5
C Cl ₄	(2)	tetrachloro-methane	56-23-5
Diffusion Coefficient at infinite dilution: $p = 101.325$ kPa; Method: CORR			Ref.: [2012B2]
T [K]	Type	$D \cdot 10^9$ [m ² /s]	
298.15	$D^0_{1(2)}$	5.00	
298.15	$D^0_{2(1)}$	1.50	
Diffusion Coefficient at infinite dilution: $p = 101.325$ kPa; Method: R-INT			Ref.: [1966L2]
T [K]	Type	$D \cdot 10^9$ [m ² /s]	
298.15	$D^0_{1(2)}$	1.95	
Diffusion Coefficient at infinite dilution: $p = 101.325$ kPa; Method: DIA			Ref.: [1985W2]
T [K]	Type	$D \cdot 10^9$ [m ² /s]	
298.15	$D^0_{1(2)}$	$1.948 \pm 0.5\%$	
Comment: ¹⁴ C-ethanol in tetrachloro-methane			

Symbols and Abbreviations

Short Form	Full Form
D	diffusion coefficient
p	pressure
T	temperature
INT	interferometry
DIA	diaphragm cell
CORR	correlation of experimental data

References

- [1966L2] Longworth, L. G.: J. Colloid Interface Sci. **22** (1966) 3–11.
 [1985W2] Weingärtner, H.: J. Chem. Soc., Faraday Trans. I **81** (1985) 1031–1035.
 [2012B2] Beigzadeh R., Rahimi, M., Shabaniyan, S. R.: Fluid Phase Equilib. **331** (2012) 48–57.